News Briefs

PAO gets associate administrator

NASA Administrator Daniel S. Goldin named Peggy Wilhide as the new associate administrator for Public Affairs. Wilhide replaces Laurie Boeder, who joined the Department of Health and Human Services as the deputy assistant secretary for Public Affairs, Policy and Plans.

NASA inducted into space hall of fame

The U.S. Space Foundation has selected two NASA technologies to be inducted into its Space Technology Hall of Fame. Lewis Research Center along with NASA Headquarters and a number of contractors were honored for conceiving and producing the Advanced Communication Technology Satellite, that demonstrates numerous applications in telemedicine and long-distance education, and in commercial fields such as the banking and petroleum. The Goddard Space Flight Center and a contractor, Scientific Imaging Technologies, was inducted into the Hall of Fame for developing a new charge coupled device that would be ideal for breast cancer detection because of the common requirements between space and medical imaging.

NASA hosts space station radiator tests

An innovative radiator, designed to provide cooling for the International Space Station, is undergoing testing at Lewis Research Center's Plum Brook Station in Sandusky, Ohio. The Photovoltaic Radiator system is being tested so engineers can evaluate the radiator's deployment mechanism, thermal cycling and heat rejection performance. This is one of the final tests prior to its installation on the International Space Station.

Dryden developing state-of-the-art solar power aircraft

Aeronautical engineers in Southern California are developing an aircraft—called Centurion—which they believe will push solar-powered aircraft concepts literally to new heights.

Engineers for AeroVironment, Inc., Simi Valley, Calif., are designing the aircraft to fly at 100,000 feet altitude. The company is developing this concept as a member of NASA's Environmental Research Aircraft and Sensor Technology program, which is sponsored by NASA's Dryden Flight Research Center.



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Scientists work to collect as much data as possible

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STS-44 in November 1991.

Once the decision to shorten the mission was made, Spacelab crew members and science teams at Marshall Space Flight Center worked steadily to complete as much science as possible.

Although the abbreviated mission was a disappointment to scientists, the research was marked by bright spots, such as the excitement of one team which recorded a "first" in combustion research. Voss completed several runs of the Droplet Combustion Experiment Sunday night.

"Six burns were successful and for the first time, we're burning free droplets," said Principal Investigator Forman Williams of the University of California at San Diego. The experiment is collecting information on burning rates of flames, flame structures and conditions under which flames are extinguished. "We can't get this kind of information from ground-based experiments," Williams said.

The Coarsening in Solid-Liquid Mixtures experiment ran in the middeck Glovebox facility. This investigation, led by Peter Voorhees of Northwestern University in Evanston, Ill., studied coarsening in metal mixtures at very high temperatures. During coarsening, small particles shrink by losing atoms to larger particles, resulting in a lack of uniform particle distribution. This weakens the material and shortens its life span.

"Because of our small size and

power usage we've been able to continue experiment runs, completing four runs with good success," said John Caruso, Lewis Research Center's project manager. "We expect the samples will show uniform particle distribution."

Early Sunday evening, Crouch began a study of the Structure of Flame Balls at Low Lewis-number, called SOFBALL, in the Combustion Module. The study was determining under what conditions a stable flame ball can exist and if heat loss is responsible for stabilization.

"The two completed runs were successful beyond my wildest dreams," said Principal Investigator Paul Ronney of the University of Southern California in Los Angeles. During the first experiment, a mix-

ture of hydrogen, oxygen and carbon-dioxide burned for the entire 500-second limit. This result is significant because, "these are the weakest flames ever burned — lowest temperature, weakest, most diluted mixtures," Ronney explained.

In the electromagnetic containerless facility, called TEMPUS, two experiment runs ended early when the undercooled, levitated samples came in contact with the wall. Thomas, Linteris and Crouch per-

Thomas, Linteris and Crouch performed runs with the Liquid Phase Sintering experiment in the Large Isothermal Furnace. The experiment looked at how liquid metals form a mixture.

Columbia blasted off at 1:21 p.m. on April 4 after a 21 minute delay due to an orbiter access hatch seal.

ISO 9000 management seminars available soon

Supervisors can learn more about JSC's ISO 9000 implementation efforts and continue communication about these activities in seminars set for April.

JSC is moving into a critical phase in its ISO 9000 implementation efforts. As the group accountable for making JSC's efforts a success, it is important that the management team have a good understanding of the progress of ISO 9000 to date and the work JSC has ahead.

Sessions are set for 1-3 p.m. Monday, April 14 and 9-11 a.m. Friday, April 18. All sessions will be held in the Bldg. 30 Auditorium.

Managers will learn the latest guidance from the Quality Council, the current schedule as JSC moves toward registration, the document control structure and the electronic document system that has been developed and the System Level Procedure.

For more information call the ISO 9000 office at x33631.



Photos by Bill Bowers

EASTER PARTY—From left, Allison Harvey, Puggles the Clown and Jennifer Bowers enjoy the Children's Easter Party at the Gilruth Center. Puggles delighted the kids with balloons twisted into various shapes. At right, Lindsay Musgrove enjoys a post-Easter egg hunt hot dog sporting the rabbit face she got at the children's party.

Employees may bring kids to work in April

By Jessie Hendrick

JSC's Equal Opportunity Programs Office will sponsor "Bring Our Children to Work" Day April 21 and 24 for about 600 JSC civil servants and contractor employees at the Gilruth Center.

"The object of the 'Bring our Children to Work' Day is to provide students, ages nine through 15, an opportunity to learn about NASA and the variety of careers available to students interested in space," said Estella Hernandez Gillette, director of the EOPO. Planned activities include space suit and space station demonstrations.

EOPO requests that each parent/sponsor bring only one student. The students do not have to be badged individually, but need to be escorted at all times by either a parent or sponsor. Information packages will be distributed to the students beginning at 8:30 a.m. The program will begin at 9 a.m. and conclude at 10:30 a.m. After the program, each student will go to his/her parent's or sponsor's primary work area to observe and share in their normal business activities. While

some organizations may be planning activities and tours specifically for their own employees and students, this is not the case across the center and parents should focus their activities on the official observance at the Gilruth and within their own primary work area. Parents/sponsors should be mindful of both security and safety policies while the students are visiting JSC.

"As a part of the observance of 'Bring Our Children to Work,' both JSC cafeterias will offer a lunch special consisting of a hamburger, French fries, and drink for \$2 to students attending the program," said Teresa Sullivan, manager of the Exchange Operations.

Civil servant parents/sponsors should register their students by submitting a registration form to the EPPO. Registration forms will be placed on the back of the JSC Announcement for "Bring Your Children to Work" Day. Contractor parents/sponsors should contact their companies' point-of-contact for "Bring Your Children to Work" Day. For more information, call Jessie Hendrick at x31203.

Reduced gravity program to foster science, engineering

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one-third gravity (the same as Mars).

The program is seen as a way to encourage the next generation of scientists and engineers. The student flight experiments went through rigorous reviews by both NASA scientists and the reduced gravity office at Ellington Field before they were selected for the program.

One group from the Georgia Institute of Technology is studying acoustic levitation (a method of using sound waves to cast a powder into a complex shape), while another from Washington State is examining the phenomenon of single-bubble sonoluminescence (a phenomenon in which a bubble can pulsate and finally burst, generating a flash of light).

The more practical side of science is well represented by groups like Northern Arizona University, which will study an EVA rescue device which shoots a tethered, sticky, rubber bullet at a drifting target. Once the bullet contacts the

target, the target can be reeled in. The target could be anything from a stranded astronaut to an errant tool floating away in microgravity. In a similar vein, there's also a joint project from the University of Kentucky and the University of Houston in which students are attempting to improve the accuracy of nondestructive damage detection methods for orbiting spacecraft.

The program is built on experience gained when the Texas Space Grant, in cooperation with JSC, proposed and implemented a summer program allowing students flight opportunities on the KC-135. The success of the '95 and '96 summer programs encouraged this national program. More information on the reduced gravity programs can be found on the Internet at the following addresses:

'95 program: http://www.csr. utexas.edu/tsgc/projects/surf/95/

'96 program: http://www.tsgc. utexas.edu/tsgc/surf.html

'97 program: http://www.tsgc.utexas.edu/tsgc/floatn.html

Hubble gives 'weather report' for Pathfinder, Surveyor missions

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planet comes closest to the Earth.

Hubble is being used to monitor dust storm activity to support the Mars Pathfinder and Mars Global Surveyor missions, which are en route to Mars. Hubble's "weather report" from these images is invaluable for Pathfinder, scheduled for landing July 4. The images show no evidence of dust storm activity, which plagued a previous mission in the early 1970s.

Checkout of the Near Infrared Camera and Multi-Object Spectrometer, or NICMOS, installed during the servicing mission, has provided both excellent results and some areas of concern.

The NICMOS, designed to observe the universe in near-infrared light, contains three cameras and a set of highly advanced light sensors which must be maintained at a very cold temperature. These sensors, along with filters and

other components, are housed in a large cryogenic dewar.

The NICMOS Principal Investigator, Rodger Thompson of the University of Arizona, said NICMOS cameras 1 and 2 have shown excellent images in focus tests. However, these tests also show that camera 3 focus is currently beyond the range of the NICMOS internal mechanical adjustment capability.

Analysis indicates the situation may be due to unexpected thermal contact in the dewar, which results in a slightly warmer temperature and a subsequent reduction of dewar lifetime.

The analysis team expects that the thermal contact might release in the future, returning NICMOS to its nominal state. Under these conditions, analysts predict that camera 3 should move back into the instrument's range of focus and are adjusting its observing schedule.

Employees may now post ads at cafeterias, Gilruth

The new format of the Space News Roundup does not include the Swap Shop advertisement section, but employees still may sell items through the cafeterias.

Bulletin boards are begin provided by the Employee Activities Association for advertisement by current and retired NASA civil service and contractor employees.

The boards are located in both cafeterias and the Gilruth Center and may be used to advertise items for sale such as property, cars/trucks, boats/planes, cycles, audiovisual and computer equipment, pets/livestock, musical instruments,

lost and found, household, wanted, or miscellaneous items. They are not for commercial advertisement.

Employees posting ads should provide the following information on a 3"x5" index card or use one of the cards provided: category or sale item (as listed above); description of the item; condition; price; seller's name and phone number

and the date the ad was posted.

Employees may either post the ads themselves in all of the three onsite locations or mail their 3"×5" card to AH12. Ads may remain posted for two weeks. For more information call x38970.